

**Notice of Allowability**

Application No.

09/443,779

Examiner

Lamont M. Spooner

Applicant(s)

CHANG ET AL.

Art Unit

2626

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed 10/11/07.
2. ☒ The allowed claim(s) is/are 1-17, 20-23, 32 and 33.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |  |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

## **DETAILED ACTION**

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph Kelly on 11/30/07.

In claim 10, line 11, replace "displays alternate grammar rules comprising" with - -displays alternate grammar rules, other than the rule used in generating the constituent at the selected connecting point, comprising- -.

### ***Allowable Subject Matter***

2. Claims 1-17, 20-23, 32 and 33 are allowed.
3. The following is an examiner's statement of reasons for allowance:

The instant application is deemed to be directed to a non-obvious improvement over the invention patented in Loatman (US 4,914,590), which teaches a method of debugging a natural language

parse. Grail (An automated proof assistant for Categorical grammar Logics) teaches clicking on a node in the tree will cause a pop-up menu to appear with the possible conversion steps rooted at the node. There the user can select the conversion to apply and Grail will keep track of the other possibilities. Loatman and Grail fail to teach alone or make obvious in combination the non-obvious improvement, found in independent claims 1 and 10 by applicant, of (claim 1)

**displaying a plurality of display items proximate to said selected connecting point, the display items including alternate rules applicable at the selected connecting point to generate constituents, other than the rule used in generating the constituent at the selected connecting point.** Regarding claim 10, displaying a first plurality of items proximate to said connecting point, the menu items including an alternate grammar rules display item which, when activated, displays alternate grammar rules, other than the rule used in generating the constituent at the selected connecting point, comprising grammar rules for generating constituents that are alternates to the rule applied in generating the constituent formed at the selected connecting point in the parse tree.

4. Claims 2-9, 11-17, 20-23, 31 and 32 are allowed, as their parent claims have been deemed allowable.
5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
  - Duan (US 6,721,697) teaches generating constituents at connection points.
  - Weise (US 6,275,791) teaches generating possible constituents, syntax rules as applied to candidate nodes in parse generation.
  - Penteroudakis et al. (US 5,995,922) teaches the display of successive application of syntax rules by a syntactic subsystem to parse an input sentence to produce a syntax parse tree.

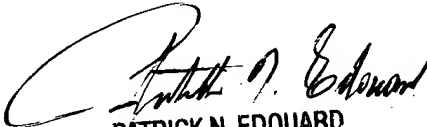
- Hu (US 5,297,040) teaches generating every possible syntactic combination as a separate rule.
- van Zuijlen (US 5,060,155) teaches grammar defining all possible relations between language elements.
- Kolowa et al. (US 6,895,578) teaches debugging a computer program, having a menu function for listing display items.
- Simonyl (US 6,097,888) teaches debugging a computer program, wherein a menu option presents possible commands available to the programmer.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamont M. Spooner whose telephone number is 571/272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Edouard can be reached on 571/272-7603. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

lms  
11/30/07

  
PATRICK N. EDOUARD  
SUPERVISORY PATENT EXAMINER